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## Research Notes

# Second Language Acquisition Theories as a Framework for Creating Distance Learning Courses

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### Abstract

Moore and Kearsley (1996) maintain distance educators should provide for three types of interaction: a) learner-content; b) learner-instructor; and c) learner-learner. According to interactionist second language acquisition (SLA) theories that reflect Krashen's theory (1994) that comprehensible input is critical for second language acquisition, interaction can enhance second language acquisition and fluency. Effective output is necessary as well. We reviewed the research on distance learning for second language learners and concluded that SLA theories can, and should, be the framework that drives the development of courses for students seeking to learn languages by distance technology. This article delineates issues to consider in support of combining SLA theories and research literature as a guide in creating distance language learning courses.

**Keywords:** Distance learning; second language acquisition and distance learners; interactionist second language learning; ESOL and distance learning; SLA theories and creating distance-learning courses; language learning and distance technology

## Second Language Acquisition Theories as a Framework for Creating Distance Learning Courses

Following the trend of distance learning courses in other domains, distance learning courses for second or foreign language learners are on the rise throughout the world, thus confirming the prediction that "distance learning will soon become the hottest education fad in decades" (Gonzalez, 1997, p. 8). Fad or not, the boom in language distance learning opportunities is evidenced by the number of search results evoked by searching Dave's ESL Cafe ([www.eslcafe.com/](http://www.eslcafe.com/)) and other language search engine sites. Much of the appeal of distance courses stems from their ability to provide access to individuals who are motivated to learn or improve proficiency in another language, but who are geographically isolated or restricted by work, schedules, and/or other considerations.

Current thought about distance learning calls for courses to be designed in ways that follow the constructivist philosophy in which learners are seen as constructors of their own knowledge through active participation in the learning process, using computers as a problem-solving tool (Dixon-Krauss, 1996; Gavelek and Raphael, 1996; Lapp, 2000; Passerini and Granger, 2000; Willis, Stephens, and Matthew, 1996). This type of learning is based on ample interaction in the learning process that allows students to resolve cognitive quandaries through concrete experience, collaborative discourse, and reflection (Brooks and Brooks, 1993).

Moore and Kearsley (1996) maintain that distance educators should provide for three types of interaction: a) learner-content, b) learner-instructor, and c) learner-learner. According to interactionist second language acquisition (SLA) theories, two-way interaction is critical in learning a second language (Pica, 1996). Interaction must consist of “comprehensible input” (Krashen, 1985, 1994), which allows the message to be understood, as well as “output” (Swain, 1995), which provides opportunities for expression and negotiation of meaning.

When distance second language course design and practice adhere to quality distance learning pedagogy and are driven by SLA theories and research, the subsequent courses can provide learners with opportunities to acquire other languages in more flexible and accessible settings than traditional classrooms and language labs. In this article, we discuss SLA innatist and interactionist theories and research to examine the appropriateness of using Moore and Kearsley’s distance learning interaction model to design lessons for second language learners. Due to the paucity of research about interaction and distance language courses, we include literature that highlights computer-assisted language learning in English as a second language (ESL) and foreign language traditional classrooms and language laboratory settings. We have taken this approach to the literature because of the potential application to distance learning practice and the possible influence it can have in defining a second language distance learning research agenda.

To better understand the issues and ramifications of language acquisition on distance learning courses, we begin this discourse by presenting an overview of major second language acquisition theories that advance the notions of comprehensible input, comprehensible output, and interaction, differentiating this term from Moore and Kearsley’s usage of interaction.

## **SLA Theories**

Theorists place different values on the role of interaction in second language acquisition (SLA). Krashen’s (1985, 1994) theory became a predominant influence in both second language teaching practice and later theories. Krashen postulates that SLA is determined by the amount of comprehensible input, that is, one-way input in the second language that is both understandable and at the level just beyond the current linguistic competence of learners. Similar to Vygotsky’s “zone of proximal development” (1962), Krashen’s scaffolding theory is referred to as *i+1*. Viewed as an innatist perspective, this theory maintains that a second language is acquired unconsciously in a manner similar to the acquisition of a first language. According to Krashen (1996), acquiring language is predicated upon the concept of receiving messages learners can understand (1996). Teachers can make language input comprehensible through a variety of strategies, such as linguistic simplification, and the use of realia, visuals, pictures, graphic organizers, and other current ESOL strategies.

While Krashen (1994) believes that only one-way comprehensible input is required for SLA, others take an interactionist position acknowledging the role of two-way communication. Pica (1994), Long (1985), and others assert that conversational interaction facilitates SLA under

certain conditions. According to Lightbrown and Spada (1999), “When learners are given the opportunity to engage in meaningful activities they are compelled to ‘negotiate for meaning,’ that is, to express and clarify their intentions, thoughts, opinions, etc., in a way *which* permits them to arrive at a mutual understanding. This is especially true when the learners are working together to accomplish a particular goal . . . “(p. 122). Pica (1994) goes on to say that negotiation is defined as “modification and restructuring that occurs when learners and their interlocutors anticipate, perceive, or experience difficulties in message comprehensibility” (p.495). A variety of modifications, which may involve linguistic simplification as well as conversational modifications such as repetition, clarification, and conformation checks, may be used to gain understanding. The interaction hypothesis of Long and Robinson (as cited in Blake, 2000) suggests that when meaning is negotiated, input comprehensibility is usually increased and learners tend to focus on salient linguistic features. Cognizance of these language forms and structures is seen as beneficial to SLA.

Other interactionist theorists apply Vygotsky’s socio-cultural theory of human mental processing to define the role of interaction in SLA (Lightbrown and Spada, 1999) and hypothesize that second language learners gain proficiency when they interact with more advanced speakers of the language, for example, teachers and peers. Scaffolding structures such as modeling, repetition, and linguistic simplification used by more proficient speakers are believed to provide support to learners, thus enabling them to function within their zones of proximal development (Vygotsky, 1962).

Although theorists adhering to interactionist thought consider both input to, and input from, the learner as important, output is often viewed as secondary. However, Swain (1995) in her “comprehensible output hypothesis” asserts that output is also critical and hypothesizes that it serves four primary functions in SLA: 1) enhances fluency; 2) creates awareness of language knowledge gaps; 3) provides opportunities to experiment with language forms and structures; and 4) obtains feedback from others about language use. Comprehensible output assists learners in conveying meaning while providing linguistic challenges; that is, “. . . in producing the L2 (the second, or target language), a learner will on occasion become aware of (i.e., notice) a linguistic problem (brought to his/ her attention either by external feedback or internal feedback). Noticing a problem ‘pushes’ the learner to modify his/ her output. In doing so, the learner may sometimes be forced into a more syntactic processing mode than might occur in comprehension” (Swain and Lapkin in Chapelle, 1997, p. 2b). From this perspective, comprehensible output plays an important role in interaction.

In summary, interactionists elaborate upon the innatist notion of comprehensible input explaining that interaction, constructed via exchanges of comprehensible input and output, has at least an enhancing effect when meaning is negotiated and support structures are used. Based on this premise, distance second language learning courses should be designed to provide interaction that includes negotiation of meaning where comprehensible output results from input.

## **Using SLA Theory and Research for Quality Design of Distance Language Courses**

SLA theory and research can be useful in designing quality second language distance education courses when applied to the three-component model of distance learning interaction supported by Moore and Kearsley (1996). By reviewing the literature, we can determine implications for

developing distance education courses that are most appropriate for the learning of a second language.

Moore and Kearsley (1996) describe three types of interaction that they believe should be integrated in distance learning courses in general. We offer an overview of each category and make reference to complementary SLA literature that supports the interactionist SLA view. Based on their overlap, the information can be helpful in generating and establishing distance second language course practice.

## **Learner - Content Interaction**

According to Moore and Kearsley (1996), a major role of the distance educator is to present appropriate content and to promote interaction between this content and the learner in ways that will cause the learner “to construct knowledge through a process of personally accommodating information into previously existing cognitive structures” (p. 128). Such interaction should induce the learner to develop new or modified knowledge and skills. In addition to textual materials used to present subject matter via distance learning, a wide array of options exist such as audio and video recordings, computer software, radio and television broadcasts, and interactive media such as CD-ROM and videodiscs.

Learner-content interaction cannot occur if learners do not understand the content; therefore, a critical design feature for second language learners includes comprehensible input. Creed and Koul (1993), among others, developed two models, the concurrent model and the integrated model, that make the meaning of text more accessible in materials for non-native speakers. Components of the concurrent model include attention to vocabulary selection, text form and rhetorical structure, and learner support. The integrated model calls for the use of illustrations, explications, and a variety of genres to provide motivation and increase accessibility.

Graddol (1993) points out that many language issues need to be addressed to ensure learner understanding. He counsels that the linguistic and communicative competence of learners needs to be determined, such as familiarity of particular discourses, including the media discourses of distance learning. Cultural issues pertaining to the subject matter, prior knowledge, and nonverbal language issues may also affect understanding. Diaz-Rico and Weed (2002) suggest that teachers find out about the cultural background of students. Additionally, implications of page design and visual representations should be considered in course design. Warschauer (1998) finds that the use of strategies such as re-reading the text, soliciting help, or using a dictionary aids the comprehension of text-based, computer-mediated discussions. Anderson (2002) maintains that the teaching of meta-cognitive strategies can help students develop stronger language learning skills.

Because of the limited skills of beginners to access materials in the target language, Lambert (1991) believes that distance instruction is best suited for learners with intermediate and advanced second language skills. However, Davis (as cited in Boyle, 1995) maintains that audio and videocassettes provide comprehensible input for beginners and thus may mitigate anxiety. Krashen’s (1985) insistence upon a non-threatening environment to facilitate language acquisition by lowering the affective filter is yet another strategy to enhance learning for both beginners and advanced language learners. The use of multimedia may provide additional support for comprehension and also accommodate different learning styles. For example, an individual who needs more cooperative learning to interact with others, may respond better to an assignment that necessitates group communication (e.g., synchronous activities, group discussions), while a more

field independent individual might prefer an individual assignment with time to be introspective (Savard, Mitchell, Abrami, and Corso, 1995).

Software programs that have inherent learner-content interaction, such as one described by Chapelle (1997) in which the computer acts as a participant while learners construct questions about past actions to solve a crime mystery. The computer responds to moves and queries, asking for clarification when it does not “understand.” Such computer-assisted language learning activities have pragmatic and linguistic objectives structured into tasks to allow second language learners to learn while doing. Distance second language course designers should plan for interaction that results in the use of targeted language objectives, allowing learners to practice new forms, functions, and structures.

Another software program described by Chapelle (1997) uses hotspots that learners click when they do not understand idioms. This technique helps make input comprehensible and may also cause learners to notice form, which is beneficial in language acquisition. This and other computer-assisted language learning practices, such as highlighting forms and signaling when errors occur, may be integrated in learning applications. Chapelle cautions that using links to provide lexical meanings does not provide appropriate interaction because it does not require comprehensible output from learners. Activities should be planned so that they provide interaction demanding comprehensible output in the form of learners attending to and modifying problematic forms.

Learner-content interaction can occur through cooperative learning activities while providing opportunities to develop linguistic and communicative competence. In Blake’s study (2000), findings indicated that the cooperative learning strategy called “jigsaw” is superior to information gap, decision-making, and opinion tasks. Jigsaw activities combine learner-content interaction with learner-learner interaction.

## **Learner - Instructor Interaction**

According to Moore and Kearsley (1996), most learners regard learner-instructor interaction in distance learning environments as essential. The instructor’s role is to present content and then maintain the learners’ motivation and interest, while assisting them as they interact with the content. Individualized attention is essential because it addresses the needs, motivation, and performance of each individual learner. The instructor’s responses to learners’ application of content are seen as especially valuable, as they provide constructive feedback concerning learners’ achievement of instructional objectives.

In distance learning environments, the instructor acts as facilitator, providing guidance and support while presenting content in ways that encourage engagement. Creed and Koul (1993) recommend that the instructor help to make linguistic features and content comprehensible. Repetition, comprehension checks, and other strategies can be used in learner-instructor interactions to negotiate meaning. Even though techniques may be embedded in course design and strategies explicitly taught to learners, some learners might need additional assistance in order to increase their understanding and reduce anxiety.

In discussing asynchronous computer-mediated-interaction, Lamy and Goodfellow (1999) remind instructors that “self-sustaining threads arise in response to questions deemed worth asking by the learning community, but these questions may not necessarily coincide with those deemed worth asking by the teacher” (p. 57). Recognizing that formal learning programs require that a syllabus

be followed, Lamy and Goodfellow caution that this situation may cause the dialogue to be controlled by the teacher, which discourages learner reflection and facilitative interaction. A goal of their online course was to discuss language and learning strategies. As a result of this emphasis, findings indicated that learners engaged in what they termed reflective conversations. Although online instructors did not control the shifts in topics of the postings, they did encourage students to “talk about words,” which did provide adequate control while allowing learners certain freedom. In addition, instructors interrupted on occasion to re-focus students on form, a practice that, according to Chapelle (1997), causes learners to notice form without interfering with the overall communicative goal. Because of this input, Lamy and Goodfellow believe that students viewed instructors as experts who modeled language use, which they hypothesized would encourage learners to practice these terms and phrases.

### **Learner - Learner Interaction**

Moore and Kearsley (1996) describe learner-learner interaction in distance education as “interlearner interaction, interaction between one learner and other learners, alone or in group settings, with or without the real time presence of an instructor” (p. 131). They point out that younger learners may find this more stimulating and motivating than adult and advanced learners. Different types of learner-learner interaction should be thoughtfully planned to address goals. For example, inter-learner discussion can promote reflection about content, while group settings are appropriate for other types of collaborative projects.

Many researchers believe that computer-mediated interaction for second language learners has beneficial features (Blake, 2000; Lamy and Goodfellow, 1999; and Warschauer, 1998). Warschauer believes it is less threatening than face to face interaction and may encourage risk taking while allowing students to set their own pace. In addition, it allows learners to have access to their texts, which can be later analyzed (Lamy and Goodfellow, 1999; Warschauer, 1998) as well as provide an equalization effect on participation. Warschauer (1998), citing his own study, found that computer-mediated interaction has greater syntactical and lexical complexity than face to face exchanges, which may be as a result of increased planning time. Citing the findings and conclusions of Pellettieri’s study of interactional modifications in synchronous electronic discussion by intermediate level learners, Warschauer also infers that computer-mediated interaction is more beneficial than oral exchanges because the extended time to process and view language increases the possibility that learners will monitor and edit their speech (Krashen, 1985), resulting in interlanguage of higher quality. Blake (2000) is convinced that computer-mediated interaction is similar to face to face interaction, and is “without the temporal and spatial constraints imposed by the classroom” (p. 132).

Lamy and Goodfellow (1999) suggest that asynchronous computer-mediated-interaction may be better for encouraging meta-linguistic reflection, because it allows learners more time to think about their own and others’ messages. Based on their study, Lamy and Goodfellow argue that reflective conversation “. . . that is, computer-mediated asynchronous discussion around language topics and language-learning issues” (p. 43), should be integrated in the design of distance second language courses. It is seen as beneficial because it has features that facilitate SLA, including negotiation of meaning and attention to form and strategy use.

Lamy and Goodfellow (1999) also found that for learners to be effective in asynchronous chat settings, they needed linguistic skills that enabled them to produce texts that:



*Are well formed and unambiguous not only linguistically but also as pieces of interactive discourse . . . [and] move the topic on in a way that takes account of what precedes and creates curiosity for what might follow, that is, that contains the combination of familiarity and unpredictability typical of “contingent interaction (p. 54).*

These points made by Lamy and Goodfellow suggest that this type of activity may not be appropriate for beginning second language learners, a view supported by Lambert (1991) in referring to distance second language courses overall.

Designers of distance language learning courses should consider learner, pragmatic, and linguistic goals in planning learner-learner interaction tasks. Chapelle (1997) reminds us that the type of learner goal affects the interaction. Communicative goals focus on the construction and interpretation of linguistic meaning, while non-communicative goals focus strictly on form. Embedding language function and linguistic objectives in interaction offers learners opportunities to develop linguistic and communicative competence.

## Conclusion

Based on this review of literature, SLA theory, research, and practice, an interactionist model may be applied to Moore and Kearsley’s three-component distance education interaction model (1996). If these factors are considered, distance second language courses appear to hold promise for providing students with comprehensible input and output while they interact and negotiate meaning. However, this review also reveals that a need exists for more extensive research about distance second language course design.

With careful planning, instructors can design courses that encourage comprehensible input, output, interaction, and negotiation of meaning, characteristics identified by interactionist theorists as crucial for SLA. While distance second language courses may lack valuable face to face interaction, they do provide viable alternatives to learners that are geographically isolated or need flexible learning environments.

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